Request to Archive With The National Centers for Environmental Information For NMFS Passive Acoustic Data Provided by NMFS

2015-08-06

This information will be used by NCEI to conduct an appraisal and make a decision on the request.

1. Who is the primary point of contact for this request?

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2. Name the organization or group responsible for creating the dataset.

DOC/NOAA/NMFS > National Marine Fisheries Service, NOAA, U.S. Department of Commerce

3. Provide an overview summarizing the scope of data you want to archive. Describe the outputs, data variables, including their measurement resolution and coverage.

The data to be archived is passive acoustic (PA) data collected in the first instance as part of the Ocean Noise Reference Station Network, as well as additional PA data collected by the NOAA Fisheries Science Centers. This will initially focus on data currently being collected and in the future, though ultimately it would be best to include the vast quantities of previously collected data (note time frame indicated below is rough approximation). The data will simply be raw acoustic data (most likely wav files) which will simply be a time series of pressure vs. time). Measurement resolution and coverage will vary between regions, though data may be collected throughout the U.S. EEZ.

4. What is the time period covered by the dataset? (YYYY-MM-DD, YYYY-MM or YYYY)

From 2010-01-01

Ongoing as continuous updates to the data record

5. Edition or version number(s) of the dataset:

N/A

6. Approximate date when the dataset was or will be released to the public:

2017

7. Who are the expected users of the archived data? How will the archived data be used?

Researchers at the NMFS Science Centers, other NOAA line offices, and when publicly available, outside researchers will be able to use the data to assess varying ocean noise conditions, anthropogenic contributions to background noise, and presence/distribution of marine life (with a focus on marine mammals, but also including acoustically active fish species).

8. Has the dataset undergone user evaluation and/or an independent review process? Did NCEI participate in design reviews?

No

9. Describe the dataset's relationship to other archived datasets, such as earlier versions or related source data. If this is a new version, how does it improve upon the previous version(s)?

N/A

10. List the input datasets and ancillary information used to produce the data.

These datasets will be the original raw acoustic data collected from the Ocean Noise Reference Station Network, as well as other passive acoustic data collection platforms used by NOAA. Ancillary information will be included in the accompanying metadata (including location, depth, sampling rate and other instrumentation and calibration parameters)

11. List web pages and other links that provide information on the data.

http://www.nefsc.noaa.gov/psb/acoustics/

http://roch.sdsu.edu/Software.shtml

http://tethys.sdsu.edu/wordpress/wp-content/uploads/2014/02/Roch-Tethys-Biowaves.pdf

- 12. List the kinds of documents, metadata and code that are available for archiving. For example, data format specifications, user guides, algorithm documentation, metadata compliant with a standard such as ISO 19115, source code, platform/instrument metadata, data/process flow diagrams, etc.
- 1. Raw acoustic data

Metadata for instrumentation and data (in development)

Tethys data management documentation

- 13. Indicate the data file format(s).
- 1. way or other raw acoustic format

14. Are the data files compressed?

No

15. Provide details on how the files are named and how they are organized (e.g., file_name_pattern_YYYYMM.tar in monthly aggregations).

This will be dependent on how each center collects the data and may vary.

16. Explain how to access sample data files and/or a file listing for previewing. If it is not available now, when will it be available?

Sample data has previously been provided to NCEI

17. What is the total data volume to be submitted?

Historic Data: all historic data or data submitted as a completed collection.

Total Data Volume: 200TB Number of Data Files: 10000

Continuous Data: data volume rate for a continuous data production.

Total Data Volume Rate: 100TB per Year Data File Frequency: 5000 per Year Data Production Start: 2014-03

18. Are later updates, revisions or replacement files anticipated? If so, explain the conditions for submitting these additional data to the archive.

Additional new data is expected though not 'replacement' data.

19. Describe the server that will connect to the ingest server at NCEI for submitting the data.

Physical Location: unknown
System Name: unknown
System Owner: unknown

Additional Information:

- 20. What are the possible methods for submitting the data to NCEI? Select all that apply.
- 1. Physical Media Delivery
- 21. Identify how you would like NCEI to distribute the data. Web access support depends on the resources available for the dataset.
- 1. Unknown
- 22. Will there be any distribution, usage, or other restrictions that apply to the data in the archive?

No known constraints apply to the data.

23. Discuss the rationale for archiving the dataset and the anticipated benefits. Mention any risks associated with not archiving the dataset at NCEI.

Passive acoustic data is being collected in larger and larger volumes as the number of platforms utilized by NOAA to collect these data continue to expand. Currently, most datasets sit on hard drives individual researcher offices, making access to data and collaboration with other researchers more difficult, and risking loss of data.

24. Are the data archived at another facility or are there plans to do so? Please explain.

As mentioned above, current archiving essentially consists of individual researchers maintaining a copy of the data in their facilities (typically on stored removable hard drives) though there has been some effort by a few of the Science Centers to centralize the data archive with networked storage within each center.

25. Is there an existing agreement or requirement driving this request to archive? Have you already contacted someone at NCEI?

There is a Service Level Agreement for the NMFS/NGDC Passive Acoustic Data Archive signed in August of 2014 by representatives from NGDC, the Alaska and Northeast Fishery Science Centers, and SDSU.

26. Do you have a data management plan for your data?

No

27. Have funds been allocated to archive the data at NCEI?

Some partial funding has been provided in FY15 (\$50k) though additional funding will be necessary to support this activity in the future.

28. Identify the affiliated research project, its sponsor, and any project/grant ID as applicable.

Various

29. Is there a desired deadline for NCEI to archive and provide access to the data?

No deadlines for archive or access.

30. Add any other pertinent information for this request.

Information provided is very approximate and some details are currently unknown until a process is worked out between NCEI and the Fishery Science Centers for submitting/archiving data. I'm happy to update or find out more required information as necessary.